

### **REMARKS/ARGUMENTS**

Claims 51-93 are pending in this application. Applicant respectfully requests reconsideration and allowance of the currently pending claims in view of the comments below.

#### **The 35 U.S.C. §112, first paragraph Claim Rejections**

##### ***Written Description***

Claims 51-78, 82-88, and 93 were rejected pursuant to 35 U.S.C. §112 first paragraph for failing to comply with the written description requirement. The office action takes issue with essentially three limitations of Claim 51 and one limitation of Claim 54 in which it has been asserted that there is subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor at the time the application was filed had possession of the claimed invention. These four limitations are the following:

- **“sequentially converting a buffered acoustic signal to a plurality of frames in a frequency domain, each frame comprising an array of frequency magnitude bins” (Claim 51)**
- **“comparing a first value of a first frequency magnitude bin that is included in a first frame with a second value of the first frequency magnitude bin that is included in a second frame” (Claim 51)**
- **“selecting the first frequency magnitude bin to be a candidate frequency” (Claim 51)**
- **“selecting the first frequency magnitude bin comprises monitoring the first frequency magnitude bin for the first value to iteratively increase to be greater than a threshold value” (Claim 54)**

To satisfy the written description requirement, a patent specification must describe the claimed invention in sufficient detail that one skilled in the art can reasonably conclude that the inventor had possession of the claimed invention. (MPEP 2163(1))

- **“sequentially converting a buffered acoustic signal to a plurality of frames in a frequency domain, each frame comprising an array of frequency magnitude bins” (Claim 51)**

Clearly, at least Figure 5 and the accompanying description describe in sufficient detail sequentially converting a buffered acoustic signal to a plurality of frames in a frequency domain, with each frame comprising an array of frequency magnitude bins. For instance, the office action cites page 10, lines 14—25 of the specification, which, when considered within the remaining discussion in the specification, reasonably conveys that the inventor was in possession of the claimed invention. Moreover, page 10, lines 14—25 describe one embodiment of the invention, but is by no means the only embodiment described. In addition, discussion of conversion of acoustic signals to the frequency domain, frequency bins, and analysis thereof is described throughout the specification, such as on page 8 line 7 through page 9 line 27. A specification is not required to describe limitations in greater detail than the invention warrants. *See Martin v. Mayer*, 953 F.2d 500 (Fed. Cir. 1987). In addition, the test for compliance with the written description requirement is whether the disclosure *reasonably conveys* that the inventor had possession of the invention, and is not dependent on presence or absence of literal support for the language used in the claims. *In re Kaslow*, 707 F.2d 1366 (Fed. Cir. 1983) (*emphasis Applicant's*) In the instant case, however, literal support for the limitations at issue is arguably included in the specification as previously discussed.

Accordingly, Applicant respectfully asserts that possession of the invention is clearly shown in the specification, and unsupported assertions that the limitations of sequentially converting a buffered acoustic signal to a plurality of frames in a frequency domain, each frame comprising an array of frequency magnitude bins as described in Claim 51 are unsupported by the specification are unfounded. In addition, pursuant to the Examiner's burden as required by MPEP 2163.04(1) Applicant respectfully requests that a *prima facie* case be established that provides specific factual reasons why a person skilled in the art at the time the application was filed would not have recognized that the inventor was in possession of the invention as claimed in view of the disclosure of the application as filed. Unsupported assertions and opinions cannot meet this burden.

- **“comparing a first value of a first frequency magnitude bin that is included in a first frame with a second value of the first frequency magnitude bin that is included in a second frame” (Claim 51)**

At least Figure 6 and the accompanying description describe in sufficient detail “comparing a first value of a first frequency magnitude bin that is included in a first frame with a second value of the first frequency magnitude bin that is included in a second frame.” For instance, the office action cites page 11, lines 13—20 of the specification, which when considered within the remaining discussion in the specification reasonably conveys to one of skill in the art that the inventor has possession of the invention. Moreover, at least pages 12 and 13 and Figs. 7a and 7b further support and provide examples that the specification reasonably conveys to one of skill in the art that the inventor had possession of the claimed invention. In addition, lines 13—20 describe “one example” of an embodiment of the invention; there are other embodiments. *See, e.g.*, at least page 13, line 6-7. “A description as filed is presumed to be adequate, unless or until sufficient evidence or reasoning to the contrary has been presented by the examiner to rebut the presumption.” MPEP 2163(III)(a) In addition, “[p]rior to determining whether the disclosure satisfies the written description requirement for the claimed subject matter, the examiner should review the claims and the *entire specification*, including the specific embodiments, figures, and sequence listings, to understand how applicant provides support for the various features of the claimed invention.” MPEP 2163 (II)(a)(2) (*emphasis Applicant’s*)

Accordingly, Applicant respectfully asserts that possession of the invention is shown, and assertions that a few lines on one page of Applicants specification are not equivalent to the limitations of “comparing a first value of a first frequency magnitude bin that is included in a first frame with a second value of the first frequency magnitude bin that is included in a second frame” as described in Claim 51 are improper analysis of Applicant’s specification as a whole, and fails to overcome the presumption that the specification is adequate. Pursuant to the Examiner’s burden as described in MPEP 2163.04(1) Applicant respectfully requests that a *prima facie* case be established that provides reasons why a person skilled in the art at the time the application was filed would not have recognized that the inventor was in possession of the invention as claimed in view of the disclosure of the application as filed.

- **“selecting the first frequency magnitude bin to be a candidate frequency” (Claim 51)**

At least Figures 5-9 and the accompanying description describe in sufficient detail “selecting the first frequency magnitude bin to be a candidate frequency” to reasonably convey to one of skill in the art that the inventor was in possession of the invention. The office action cites page 14 of the specification, which contains at least a portion of the written description related to the above-identified limitation to support the assertion of lack of equivalency with the cited limitation of Claim 51, despite the fact that even the cited portions of the specification are clearly discussing frequency bins and selection of candidate frequencies. Accordingly, Applicant respectfully asserts that possession of the invention is shown, and assertions that the limitations of “selecting the first frequency magnitude bin to be a candidate frequency” as described in Claim 51 are not explained in the specification are not only completely unsupported, but utterly fail to provide a factual basis for overcoming the presumption that Applicant’s specification is adequate. Thus, pursuant to the Examiner’s burden as described in MPEP 2163.04(1) Applicant respectfully requests that a *prima facie* case be established that provides reasons why a person skilled in the art at the time the application was filed would not have recognized that the inventor was in possession of the invention as claimed in view of the disclosure of the application as filed.

- **“selecting the first frequency magnitude bin comprises monitoring the first frequency magnitude bin for the first value to iteratively increase to be greater than a threshold value” (Claim 54)**

At least Figures 6-9 and the accompanying description describe in sufficient detail “selecting the first frequency magnitude bin comprises monitoring the first frequency magnitude bin for the first value to iteratively increase to be greater than a threshold value.” In fact, the office action cites page 14 of the specification, which contains a discussion of at least frequency bin magnitude and threshold values. In addition, threshold values, frequency bins and iteratively increasing values are discussed at length on at least pages 11-13 of the specification. Accordingly, Applicant respectfully asserts that possession of the invention is shown, and

assertions in the office action that the limitations of “selecting the first frequency magnitude bin comprises monitoring the first frequency magnitude bin for the first value to iteratively increase to be greater than a threshold value” as described in Claim 54 are not adequately described in the specification to reasonably convey to one of skill in the art that the inventor had possession of the invention are completely unsupported. In addition, pursuant to the Examiner's burden as described in MPEP 2163.04(1) Applicant respectfully requests that a *prima facie* case be established that provides reasons why a person skilled in the art at the time the application was filed would not have recognized that the inventor was in possession of the invention as claimed in view of the disclosure of the application as filed.

Further, while there is no *in haec verba* requirement, newly added claim limitations must be supported in the specification through express, implicit, or inherent disclosure. (MPEP 2163(1)(B)) Clearly, the claimed limitations at issue, namely, “sequentially converting a buffered acoustic signal to a plurality of frames in a frequency domain, each frame comprising an array of frequency magnitude bins”; “comparing a first value of a first frequency magnitude bin that is included in a first frame with a second value of the first frequency magnitude bin that is included in a second frame”; “selecting the first frequency magnitude bin to be a candidate frequency”; and “selecting the first frequency magnitude bin comprises monitoring the first frequency magnitude bin for the first value to iteratively increase to be greater than a threshold value” are at least implicitly and inherently disclosed throughout the specification.

Moreover, with regard to Claims 51-78, 82-88, and 93, the office action includes factual assertions such as "The specification of the instant application...is not equivalent to [particular language] in Claim 51." Official notice of these factual assertions was not taken and no support for such factual assertions has been provided. Applicant respectfully submits that, in the context of a system for reducing acoustic feedback described in Claims 51-78, 82-88, and 93, such factual assertions are not common knowledge as evidenced by the lack of any cited teaching or suggestion in the prior art of record. If the office action is taking official notice of these factual assertions, Applicant respectfully requests, pursuant to MPEP 2144.03(c), and to clarify issues for appeal, that adequate evidence be provided to support such factual findings.

Finally, the office action states that Claims 63, 78, 82, 85, and 93 are rejected for the same reasons described at pages 2-6 of the office action, and Claims 52-62, 64-77, and 83-88 are

rejected for depending on a rejected Claim. Applicant respectfully traverses these rejections. In addition to the foregoing arguments with regard to the cited limitations of Claims 51 and 54, pursuant to the Examiner's burden as described in MPEP 2163.04(1), Applicant respectfully requests that a *prima facie* case be established that provides reasons why a person skilled in the art at the time the application was filed would not have recognized that the inventor was in possession of the invention as claimed in view of the disclosure of the application as filed. Due to the lack of any factual evidence supporting these rejections, Applicant respectfully asserts that possession of the invention is provided by the specification for Claims 63, 78, 82, 85, and 93. In addition, since Claims 52-62, 64-77, and 83-88 were not specifically rejected as failing to comply with the detailed description requirement, the rejection of these claims should be withdrawn for at least the same reasons previously discussed.

Thus, Applicant respectfully requests withdrawal of the 35 U.S.C. §112 first paragraph rejections of Claims 51-78, 82-88, and 93

### ***Enablement***

Claims 79-81 and 89-92 were rejected under 35 U.S.C. § 112, first paragraph for failing to comply with the enablement requirement because the specification does not describe the subject matter contained in the claims in such a way as to enable one skilled in the art to make and use the claimed invention. Applicant respectfully traverses these rejections since the burden of establishing a reasonable basis for why the scope of protection provided by the claims is not enabled by the disclosure has not been met for at least the following reasons.

There are many factors to be considered when determining whether there is sufficient evidence to support a determination that a disclosure does not satisfy the enablement requirement and whether any necessary experimentation is "undue." These factors include, but are not limited to:

- (A) The breadth of the claims;
- (B) The nature of the invention;
- (C) The state of the prior art;
- (D) The level of one of ordinary skill;

- (E) The level of predictability in the art;
- (F) The amount of direction provided by the inventor;
- (G) The existence of working examples; and
- (H) The quantity of experimentation needed to make or use the invention based on the content of the disclosure.

*In re Wands*, 858 F.2d 731, 737, 8 USPQ2d 1400, 1404 (Fed. Cir. 1988) (reversing the PTO's determination that claims directed to methods for detection of hepatitis B surface antigens did not satisfy the enablement requirement).” MPEP 2164.01(a)

While the analysis and conclusion of a lack of enablement are based on the factors discussed in MPEP §2164.01(a) and the evidence as a whole, it is not necessary to discuss each factor in the written enablement rejection. The language should focus on those factors, reasons, and evidence that lead the examiner to conclude that the specification fails to teach how to make and use the claimed invention without undue experimentation, or that the scope of any enablement provided to one skilled in the art is not commensurate with the scope of protection sought by the claims. This can be done by making specific findings of fact, supported by the evidence, and then drawing conclusions based on these findings of fact. For example, doubt may arise about enablement because information is missing about one or more essential parts or relationships between parts which one skilled in the art could not develop without undue experimentation. In such a case, the examiner should specifically identify what information is missing and why one skilled in the art could not supply the information without undue experimentation. See MPEP §2164.06(a). References should be supplied if possible to support a *prima facie* case of lack of enablement, but are not always required. *In re Marzocchi*, 439 F.2d 220, 224, 169 USPQ 367, 370 (CCPA 1971). However, specific technical reasons are always required. MPEP 2164.04

In the office action mailed June 15, 2007, aside from copying select limitations from independent Claims 79 and 89, the language that focuses on those factors, reasons, and evidence that lead the examiner to conclude that the specification failed to teach how to make and use the claimed invention without undue experimentation come down to the unsupported assertion that “how to get values [to perform the cited claimed limitations].....is not enabled by the disclosure.” (Note that Applicant has ignored the terms “critical or essential to the practice of the invention, but not included in the claim(s)” as a typographical error since the office action has quoted language directly from Claims 79 and 89.)

Applicant respectfully traverses these assertions not only because the office action has failed to provide any evidence or other factual basis for such assertions based on the factors from MPEP 2164.01(a), but also because Applicant respectfully asserts that Applicant's specification and drawings are fully enabling without undue experimentation. Moreover, Applicant's specification describes in detail at least one mode for making and using the claimed invention, which includes actual values and example data as previously discussed.

Based on the lack of specific factual evidence or reasons for the assertion of lack of enablement in the Office Action mailed June 15, 2007 the rejection of Claims 79-81 and 89-92 is improper. Accordingly, Applicant respectfully requests withdrawal of the enablement rejections of Claims 79-81 and 89-92. In the alternative, Applicant respectfully requests a non-final office action that includes presentation of a prima facie case of factual and specific evidence or reasons supporting lack of enablement rejections, instead of what appears to be simply personal opinions of a general nature. "The examiner should **never** make the determination [of lack of enablement] based on personal opinion. The determination should always be based on the weight of all the evidence." (MPEP 2164.05)

#### **SUMMARY**

In view of the foregoing remarks, pending Claims 51-93 are patentable. Applicant requests that a notice of allowance be issued. The Examiner is invited to contact the undersigned attorney for the Applicant via telephone if such communication would expedite examination and/or allowance of this application.

Respectfully submitted,

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